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## INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Complete if Known 09/747.273 **Application Number** Filing Date 12/22/2000 First Named Inventor Fischer et al. Art Unit 2684 **Examiner Name** 

Nick Corsaro

Sheet	1		of	4	Attorney Docket Number 100.04		USR4	
U.S. PATENT DOCUMENTS								
Examiner	iner Cite Document Number			Publication Date	Name of Patentee or		Pages, Columns, Lines, Where	
Initials	No.1	Number - Kind Code <sup>2 (# known)</sup>		MM-DD-YYYY	Applicant of Cited Document		Relevant Passages or Relevant Figures Appear	
14		US-3,931,473	<u> </u>	January 6, 1976	Ferris, Jr.			
14		US-4,101,834	<del> </del>	July 18, 1978	Stutt, et al.			
$n\mu$		US-4,112,488		eptember 5, 1978	Smith, III			
· nu		US-4,144,409		March 13, 1979	Utano et al.			
14		US-4,144,411		March 13, 1979	Frenkiel			
774		US-4,231,116		October 28, 1980	Sekiguchi et al.			
nu		US-4,244,046	<u> </u>	January 6, 1981	Brouard, et al.			
m		US-4,354,167		October 12, 1982	Terreault, et al.			
n		US-4,402,076		August 30, 1983	Krajewski		·	
M		US-4,451,699	<u> </u>	May 29, 1984	Gruenberg.			
70		US-4,456,793		June 26, 1984	Baker et al.			
nu		US-4,475,010		October 2, 1984	Huensch, et al.			
$\eta \lambda$		US-4,485,486	No	ovember 27, 1984	Webb et al.			
nu		US-4,525,861		June 25, 1985	Freeburg.			
eni		US-4,531,239	<u> </u>	July 23, 1985	Usui .			
su		US-4,556,760		ecember 3, 1985	Goldman			
me		US-4,596,051	1	June 17, 1986	Feldman			
m		US-4,613,990	Se	ptember 23, 1986	Halpern			
·M		US-4,669,107	<u></u>	May 26, 1987	Eriksson-Lennartsson			
ne		US-4,701,909		October 20, 1987	Kavehrad, et al.			
m		US-4,704,733	N	ovember 3, 1987	Kawano			
57		US-4,718,004		January 5, 1988	Dalal			
M		US-4,754,451		June 28, 1988	Eng, et al.			
in		US-4,759,051		July 19, 1988	Han.			
n		US-4,760,573	<u> </u>	July 26, 1988	Calvignac, et al.			
91		US-4,790,000	0	ecember 6, 1988	Kinoshita		•	
7/4		US-4,797,947	<u> </u>	lanuary 10, 1989	Labedz			
M		US-4,816,825		March 28, 1989	Chan, et al.			
7W		US-4,831,662		May 16, 1989	Kuhn			
M		US-4,849,963		July 18, 1989	Kawano, et al.			
m		US-4,916,460		April 10, 1990	Powell			
'M		US-4,920,533		April 24, 1990	Dufresne, et al.			
m		US-4,932,049		June 5, 1990	Lee			
M		US-4,959,829	Se	ptember 25, 1990	Griesing			
M		US-4,977,593	D	ecember 11, 1990	Ballance			
M		US-5,067,147	No.	ovember 19, 1991	Lee			
7/		US-5,067,173	N	ovember 19, 1991	Gordon , et al.			
W		US-5,084,869		lanuary 28, 1992	Russell			
<b>1</b>		US-5,136,410		August 4, 1992	Heiling, et al.			
$\sim$		US-5,138,440		August 11, 1992	Radice			

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Complete if Known Substitute for form 1449A/PTO 09/747,273 **Application Number** Filing Date 12/22/2000 INFORMATION DISCLOSURE First Named Inventor Fischer et al. STATEMENT BY APPLICANT UCI 0 5 20QM Art Unit 2684 (Use as many sheets as necessary) **Examiner Name** Nick Corsaro Technology Center 2600 100.047USR4 Sheet Attorney Docket Number **U.S. PATENT DOCUMENTS** Document Number Pages, Columns, Lines, Where **Publication Date** Name of Patentee or Examiner Relevant Passages or Relevant MM-DD-YYYY Applicant of Cited Document Initials\* No. Figures Appear US-5,159,479 Takagi October 27, 1992 US-5,175,867 December 29, 1992 Wejke, et al. US-5,193,109 March 9, 1993 Lee US-5,243,598 September 7, 1993 Lee US-5,251,053 October 5, 1993 Heidemann US-5,267,261 November 30, 1993 Blakeney, II et al. US-5,272,700 December 21, 1993 Hansen, et al US-5,278,690 January 11, 1994 Vella-Coleiro US-5,280,472 January 18, 1994 Gilhousen et al. US-5,285,469 February 8, 1994 Vanderpool US-5,297,193 March 22, 1994 Bouix et al. US-5,301,056 April 5, 1994 O'Neill US-5,303,287 April 12, 1994 Laborde US-5,305,308 April 19, 1994 English et al. US-5,309,474 May 3, 1994 Gilhousen et al. US-5,339,184 August 16, 1994 Tang US-5,381,459 January 10, 1995 Lappington US-5,392,453 February 21, 1995 Gudmundson et al. US-5,442,700 August 15, 1995 Snell, et al.

FOREIGN PATENT DOCUMENTS								
Examiner Initials*	Cite No.1	Foreign Patent Document  Country Code <sup>3</sup> - Number - Kind Code <sup>5</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	. Le		
		CA-2008900	10-04-1990	Ta-Shing, et al.		T		
Z/1_x		DE-3707244	09-15-1988	Schalamon		$\top$		
M		EP-0166885-A2 (English Language Abstract Included)	01-08-1986	Ketterling, et al.				
we		EP-0346925-A2	12-20-1989	Takagi				
al		EP-0368673-A1	05-16-1990	Motley, et al.		+-		
704		EP-0391597-A2	10-10-1990	Chu, et al.		+		
777		EP-0468688-A2	01-29-1992	Russell, et al.		+		
w		FR-2345865 (English Language Abstract included)	10-21-1977	Sina SPA (IT)				
an	,	JP-58-164007 (English Language Abstract included)	09-28-1983	Masatsugu, et al.	,			
2		JP-3-26031 (English Language Abstract included)	02-04-1991	Tomio, et al.				
911		JP-5-12374 (English Language Abstract included)	01-22-1993	Matsumi				

Läuder, et al.

December 24, 1996

US-5,587,734

Examiner Date	10/2/5
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Application Number	09/747,273	RECEIVED					
Filing Date	12/22/2000	ULCEIVED					
First Named Inventor	Fischer et al.	OCT 0 5 2004					
Art Unit	2684	001 00 2004					
Examiner Name	Nick Corsaro	Technology Center 260					
Attorney Docket Number	100.047USR4	3, 301101 200					

Examiner Initials*  Cite No.  Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.  Merrett et al., 41st IEEE Vehicular Technology Conference, May 19-22, 1991, Gateway to the Future Technology, 91CH2944-7, British Telecom Research Laboratories, "A Cordless Access System Using Radio-Over-Fibre Techniques," pp. 921-924.	T2
Technology, 91CH2944-7, British Telecom Research Laboratories, "A Cordless Access System Using Radio-	
Milicrowaves & RF, "Digital Transport for Cellular," Feb. 1993.	
Microwaves & RF, Mar. 1993, "Offshore Markets Gain in Size, Competitiveness, Even the smallest industry companies are expanding their global business, despite such costly distractions as ISO 9000." (pages 33, 34, 36-39).	
O'Byme, Vehicular Technology Society 42nd VTS Conference Frontiers of Technology, From Pioneers to the 21st Century, GTE Laboratories Incorporated, "TDMA and CDMA in a Fiber-Optic Environment," Vol. 2 of 2, pp 727-731 (May 10, 1992).	
Russell, "New Microcell Technology Sets Cellular Carriers Free, Telephony, Mar. 1993, pp 40, 42 and 46.	
R. Steele. Towards a High-Capacity Digital Cellular Mobile Radio System. "Towards a High Capacity Digital Cellular Mobile Radio System," IEE Proceedings, Vol. 132, Pt.F, No. 5, Aug. 1985, pages 405-415.	
Tang, Fiber Optic Antenna Remoting for Multi-Sector Cellular Cell Sites. GTE Laboratories-Abstract (Conference Jun. 14-18, 1992).	
Titch, "Kentrox boosts coverage and capacity," Telephony Jan. 25, 1993 (1 page).	
Urban Microcell System Layout. GTE Laboratories (Conference Jun. 14-18, 1992)	
Wala, 1993 43rd IEEE Vehicular Technology Conference, May 18-20, 1993, Personal Communication— Freedom Through Wireless Technology, Waseca Technology Inc., published May 18, 1993, "A New Microcell Architecture Using Digital Optical Transport," pp. 585-588.	
"ZoneMaster.TM.—Maximum Coverage For High-Capacity Locations". Decibel Multi Media MicroCELL System. 4 pages. 1993 Decibel Products. 2-83-5M.	

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